

Investigations in the Field of Conjugated Systems. LXXIV. The Interaction of Propargylvromide with Aliphatic Aldehydes under the Conditions of the Reformatskiy Reaction, by A. A. Petrov, Yu. I. Porfiryeva and G. I. Sezenov, 4 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 5, 1957, pp 1175-1178.

Consultants Bureau

Sci - Chem  
Sep 58

72,848

Investigations in the Field of Conjugated Systems,  
LXXVI. The Order of Bromine Addition to Alkynyl-  
and Isoalkenylacetylenes, by A. A. Petrov and Yu.  
I. Porfirova, 8 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 7,  
1957, pp 1805-1813.

Consultants Bureau

Sci - Chem

Oct 1958

74, 134

Investigations in the Field of Conjugated Systems. LXXVII. The Order of Addition of Hydrogen Halides to Propenylacetylene, by A. A. Petrov, Yu. I. Porfiryeva, 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 4, 1957, pp 2076-2080.

Consultants Bureau

Sci - Chem  
Oct 58

74, 183

Investigation of Conjugated Systems. LXXVII.  
Combination Scattering Spectra and Reactivity  
of Vinylacetylene Hydrocarbons, by A. A. Petrov,  
V. A. Kolosova, Yu. I. Porfiryeva, 6 pp.

RUSSIAN,  
XIXE per Zhur Obshch Khim, Vol XXVII, No 8,  
1957, pp 2088-2093.

1-2087.

Consultants Bureau

Sci - Chem  
Oct 51

74, 184

The Investigation of Conjugated Systems. LXXXI.  
The Order of Bromine Addition to Dialkylvinylethynyl-  
carbinols, by A. A. Petrov, K. B. Rall, 4 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 9,  
1957, pp 2402-2405.

Consultants Bureau

Sci - Chem  
Oct 58

75,159

Investigations on Conjugated Systems. LXXXI. Infra-  
red Spectra of Some  $\alpha$ -Unsaturated Acetylenic  
Aldehydes and Ketones, by A. A. Petrov, G. I.  
Semenov, 4 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 11,  
1957, pp 2947-2950.

Consultants Bureau

Sci. + Chem

Jan 59

78,789

Investigations on Conjugated Systems. LXXXIII.  
The Structure and Reactivity of the Methyl  
Ester of Vinylacetylene Carboxylic Acid, by  
A. A. Petrov, K. S. Hall, and G. I. Semenov,  
1 pp.

RUSSIAN, per, Zhur Goshch Khim, Vol XXVIII,  
No 2, 1958, pp 424-427.

Consultants Bureau

Sci. Chem

Apr 58

85,676

Investigations in the Field of Conjugated ~~Sp~~  
Systems LXXXIV: Diacetyne Compounds. I. Synthesis  
and Properties of  $\beta$ -Alkoxydivinylacetylenes  
(Enol Ethers of Methylvinylethynyl Ketone). by  
A. A. Petrov, 3 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVIII, No 3,  
1958, pp 638-640.

Consultants Bureau

Sci - Chem

87,360

May 59



Studies in the Field of Conjugated Systems. Part 85.  
Condensation of Halodienes with Acetylenedicarboxylic  
Ester, by V. S. Miklashevskaya, A. A. Petrov.

RUSSIAN, per Zhur Obshchei Khim, Vol XXVIII, No 5,  
1958, pp 1125-1127.

ATS RJ-1661

Sci - Chem

Jul 59

90,844

Studies in the Field of Conjugated Systems.

LXXVII. The Combination of Piperylene Hydrochloride with Isoprene, by A. A. Petrov, N. A. Ruzumkova, M. L. Genusov, 5 pp.

RUSSIAN, per. Zhur Obshch Khim, Vol XXVIII, No 5, 1958, pp 1128-1131.

C  
Consultants Bureau

Sci - Chem  
Jul 59

93,258

Investigations on Conjugated Systems. LXXX. Infra-  
red Spectra of Some Acetylenic and Vinylacetylenic  
Alcohols, by A. A. Petrov, G. I. Semenov, 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 11,  
1957, pp 2941-2946.

Consultants Bureau

Sci - Chem

Jan 59

78,787

Investigations of Conjugated Systems, XCII,  
Sequence of Addition of Iodine to Vinylacetylenic  
Hydrocarbons, by A. A. Petrov, Yu. I. Porfir'eva,  
T. V. Yakovleva, K. S. Mingaleva, 5 pp.

RUSSIAN, per, Zhur Oshch Klim, Vol XXVIII, No 9,  
1958, pp 2320-2324.

CB

Sol. - Chem  
Oct 59

109068

Investigations of Conjugated Systems. XCIII. The  
Sequence of Addition of Alkyl Hypobromites to  
Vinylalkylacetylene, by A. A. Petrov, Yu. I.  
Porfir'eva, G. I. Semanov, 4 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVIII, No 9,  
1958, pp 2325-2327.

CB

Sci - Chem  
Oct 59

100,066

Investigations of Conjugated Systems. CXX. Addition  
of Alkylolithiums to Vinylisopropenylacetylene,  
by A. A. Petrov, V. A. Kormer, T. V. Yakovleva, 5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 7, 1960,  
pp 2238-2242.

CB

569  
166, 307

Sci

Aug 61

Investigations of Conjugated Systems. CXXI. Addition  
of Alkylolithiums to Trialkylvinylethynylsilanes,  
by A. A. Petrov, V. A. Kormer, M. D. Stadnichuk,  
p. 22.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 7, 1960,  
pp 2243-2247.

CB

571  
166, ~~309~~

Sci

Aug 61

A. P. M. R. Study of the Energy Transfer Processes  
Occurring During the Radiolysis of Certain Frozen  
Hydrocarbons, by Yu. N. Molin, I. I. Chkheydze,  
Al. A. Petrov, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXI, No 1,  
1960, pp 125-128.

CB

149,758

Sci

Apr 61



Petrov, A. A., Kormer, V. A., and Savich, I. G.  
MECHANISM OF LITHIUM-ALKYLS ADDITION TO  
ENYNE-HYDROCARBONS. [1961] 2p. 6 refs.  
Order from OTS or SLA \$1.10 61-18584

Trans. of #Zhurnal Obshchei Khimii (USSR) 1960,  
v. 30 [no. 12] p. 3845-3846.

DESCRIPTORS: \*Lithium compounds, Alkyl radicals,  
\*Hydrocarbons, Chemical reactions, Infrared  
spectroscopy.

(Chemistry--Organic, TT, v. 6, no. 9)

61-18584

I. Petrov, A. A.  
II. Kormer, V. A.  
III. Savich, I. G.

Office of Technical Services

10-1-24  
HQ FTD (TDBDR-1)

BT66-17-511T

Dup check for info only

Strain of a cylindrical blade ~~xxxx~~ under the action  
of shock loading

Petrov, A. A.

Russian collection: Trudy. Leningr. Korabelstroit.  
in-ta, part 43, 137-151-, 1964

Synthesis and Properties of  $C_{12}-C_{16}$  Monomethyl-  
alkanes, by Al. A. Petrov, et al.

RUSSIAN, RSR, In Ak Nauk SSSR: Otdel Khim Nauk,  
1949, pp 1053-1059.

Dept of Interior  
Tr No 226

Sci

Jan 63

<p>Petrov, A. B. THE EFFECT OF THE IMPURITIES IN ARGON ON THE QUALITY OF ARGON-ARC WELDS. [1962]. [18]p. Order from CTS or SLA \$1.60 62-20159</p> <p>Trans. of Avtožennee Delo (USSR) 1952, v. 23, no. 9, p. 5-8.</p> <p>DESCRIPTORS: *Argon, Impurities, *Arc welds, Aluminum alloys, Quality control</p> <p>(Metallurgy, T, v. 9, no. 11)</p>	<p>62-20159</p> <p>I. Petrov, A. B.</p> <p>100 81131</p> <p>Office of Technical Services</p>
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Petrov, A. D., Ponomarenko, V. A., Mikhitarian,  
L. L., and Snegova, A. D.

THE SYNTHESIS AND PROPERTIES OF MONOCHLORO  
DERIVATIVES OF ETHYL SILANE CHLORIDES. [1964]

8p (figs omitted) 10 refs

Order from OTS, SLA, or ETC \$1.10 TT-64-14914

Trans. of Akademiya Nauk SSSR. Doklady, 1955, v. 100  
no. 6, p. 1107-1110.

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-14914

- I. Petrov, A. D.
- II. Ponomarenko, V. A.
- III. Mikhitarian, L. L.
- IV. Snegova, A. D.

Office of Technical Services

<p>Petrov, A. D. ANTIKNOCK PROPERTIES AND FOUR POINTS OF INDIVIDUAL HYDROCARBONS OF THE DIESEL FUEL RANGE. I. [1962] 6p 4refs Order from OTS or SLA \$1.10 62-14126</p> <p>Trans. of Akademiya Nauk SSSR. Otdelanie Khimicheskikh Nauk. Izvestiya, 1941, no. 1, p. 145-155. Also available from OTS or SLA \$2.60 in 61-20795 [1961] 25p.</p> <p>DESCRIPTORS: *Fuel oil, *Antiknock, *Hydrocarbons, Methanes, Ethylenes, Naphthenes, Benzenes, Toluenes, Cyclohexanes, Heptanes, Decanes.</p> <p>(Materials--Fuels, TT, v. 10, no. 10)</p>	<p>62-14126</p> <p>I. Petrov, A. D.</p> <p>1252507</p> <p>Office of Technical Services</p>
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Petrov, A. D. and Kaplan, E. P.  
SYNTHESIS AND PROPERTIES OF ISOPARAFFIN  
HYDROCARBONS OF THE COMPOSITION  $C_{12}-C_{22}$   
COMMUNICATION 2. [1963] 9p. 13 refs.  
Order from OTS or SLA \$1.10

63-16901

Trans. of Zhurnal Obshchei Khimii (USSR) .942, v. 12  
[no. 1/2] p. 99-103.  
An abstract trans. is available from OTS or SLA \$1.60  
as 61-20323 [1961] 18p.

DESCRIPTORS: \*Alkanes, \*Alkenes, \*Ethyl radicals,  
\*Methyl radicals, \*Butyl radicals, Hydrocarbons,  
Physical properties, Chemical properties, Bromides,  
Synthesis (Chemistry).

The following hydrocarbons were synthesized for the  
first time: 4,5-diethyloctane, 2,7-dimethyl-4,5-  
diethyloctane, 7,8-diethyltetradecane, 5,6-diethyl-  
(Chemistry-Organic, TT, v. 10, no. 7) (over)

63-16901

I. Petrov, A. D.  
E. Kaplan, E. P.

1247266

Office of Technical Services

Synthesis of Organosilicon Monomers; by A. D.  
Petrova  
RUSSIAN.  
Heywood and Company Ltd.,

Sci - Chem  
Apr 65

278,173



Synthesis of Organosilicon Monomers, by 58  
A. D. Petrov, V. P. Mironov, et al. 492 pp.  
RUSSIAN, bk, 1964.  
CONSULTANTS BUREAU

Sci/Chemistry  
Mar 68

346,008

A. D. Petrov

Petrov, A. D., Mironov, V. F., Ponomarenko, V. A.  
and Chernyshev, E. A.  
SYNTHESIS OF ORGANOSILICON MONOMERS,  
1963, approx 575p  
Order from CB \$22.50

Trans. of mono. [Sintez Krenniforganicheskikh  
Monomerov, Moscow, 1961, 559p.].

DESCRIPTORS: \*Organic compounds, \*Silicon com-  
pounds, Synthesis (Chemistry), Plastics, Rubber,  
Polymers.

(Chemistry-Organic, TT, v. 10, no. 12)

63-12531

- I. Petrov, A. D.
- II. Mironov, V. F.
- III. Ponomarenko, V. A.
- IV. Chernyshev, E. A.
- V. Consultants Bureau  
Enterprises, Inc.,  
New York

Office of Technical Services

— Petrov, A. D.

SYNTHETIC LUBRICATING OILS. [1961] 13p 15refs  
Order from OTS, SLA, or ETC \$1.60 TT-61-16608

Trans. of Khimiya Tverdogo Topliva (USSR) 1934,  
v. 5, p. 632-641.

DESCRIPTORS: \*Synthetic lubricants, \*Lubricants,  
\*Oils, Polymerization, Aluminum compounds,  
Chlorides, Electric discharges.

(Materials--Lubricants, TT, v. 11, no. 3)

TT-61-16608

I. Petrov, A. D.

1101780

Office of Technical Services

Synthesis of Organosilicon Monomers, by A.D. Petrov,  
V.F. Mironov et al.

RUSSIAN, bk, 1961.

CB

Sci

Nov 61

Synthesis of Organosilicon Monomers With  
Nitrile Groups, by A. D. Petrov, Ye. P.  
Zakharov, et al., 8 pp.

RUSSIAN, per, Zhur Prikladnoy Khim,  
Vol XXXV, No 2, 1962, pp 385-389. 9667326

FTD-TT-62-1260

Sci -Phys  
Jun 63

219,957

Synthesis of Branched  $C_{12}$  -  $C_{16}$  Acids in the  $C_nH_{2n-1}COOH$  Series,  
by G. I. Nikishin, Yu. N. Ogibin, A. D. Petrov, 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 7, 1960,  
pp 2148-2152.

CB

551  
166, ~~289~~

Sci

Aug 61.

Organosilicon Compounds Containing a Cyano-Group.  
by V. M. Vdovin, A. D. Petrov. 15 pp.

RUSSIAN, per, Uspekhi Khim, No 7, 1962, pp 793-821.

CS

Sci

Mar 63

233,806

THE REACTION BETWEEN ALKENYL- AND ARYLHALOGENIDES  
AND TRIARYLSILANES AT HIGH TEMPERATURES,  
BY A. D. PETROV, Y. E. FISHER, 5 PP.

RUSSIAN, PER, ZHUR OSHCH KHIM, VOL XXXII, NO 3,  
1962, PP 698-703.

CB

SCI

FEB 63

221,533



THE EFFECT OF TEMPERATURE ON THE DIRECTION OF  
THE REACTION OF ALIPHATIC ESTERS WITH LITHIUM ALKYL,  
BY A. D. PETROV, E. P. KAPLAN, 6 PP.

RUSSIAN, PER, ZHUR OBSHCH KHM, VOL XXXII, NO 3,  
1962, PP 693-697.

CB

SCI

FEB 63

221,532

Alcohols and the Protective Properties of their  
Monolayers against Evaporation in Reservoirs, by  
A. D. Petrov, A. A. Trapeznikov, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXVIII,  
(CXXXI), No 6, 1961, pp 1395-1398.

CS

Sci

Nov 62

217,980

Synthesis and Properties of Mono- and Poly-  
alkylmethylthalenes. III., by D. N. Alsteyev, A. G.  
Petrov. 51 pp.

RUSSIAN, Eng, Zhur Evgen Khriz, Vol 2006 111, 50 p.  
1960.

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Sci - Chem

Oct 62

Organosilicon Compounds With Hydrocarbon Bridges  
Between Silicon Atoms IV. The Pyrolysis of  
 $\alpha,\omega$ -disilalkanes, by A. D. Petrov, et al, 5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXXI, No 10,  
1961, pp 3230-3233.

CB

Sci  
Sep 62

211,759

SYNTHESIS OF SILICON-, GERMANIUM-, AND TIN-~~XXXXXXXX~~  
CONTAINING PARA-SUBSTITUTED STYRENES AND A-  
METHYLSTYRENES, BY A. D. PETROV, F. A. CHERNYSHEV,  
4pp.

RUSSIAN, PER, DOK AK NAUK SSSR, VOL CXL, NO 4,  
1961, PP 837-840.

CB

SCI

JUL 62

204,364

Synthesis and Properties of Di- and Triphenylalkanes.  
Communication 4. Selective Hydrogenation of Di-  
and Triphenylalkanes Over  $PtO_2$ , by M. A. Ghe-  
tsova, A. D. Petrov, 7 pp.

KHIMIA, per, Is Ak Nauk SSSR, Otdel  
Khim Nauk, No 2, 1961, pp 294-301.

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Sci

Jan 62

196, 811

Catalytic Disproportionation of Alkyl (and  
Alkenyl) Dichlorosilanes, by A. D. Petrov,  
V. M. Vdovin, pp 8

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,  
No 3, 1960, pp 519-526.

CB

195,362

Sci  
May 62

The Preparation of Organosilicon Derivatives of Bicyclo-  
(2,2,1)-Heptane, by A. D. Petrov, A. F. Plato, E. A.  
Chernyshev, 8 pp.

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RUSSIAN, per, Zhur Obshch Khim, Vol XXXI, No 4, 1961,  
pp. 1199-1208

1199-1208

CB

196,693

Sci  
Apr 62



Synthesis and Properties of p-Dialkylbenzenes,  
by A. D. Petrov, G. I. Nikishin, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,  
No 4, 1960, pp 717-723.

CB

Sci

May 62

194,446

61-20147

Petrov, A. D., Krutov, K. M., and Khrenov, I. M.  
SYNTHESIS AND PROPERTIES OF ETHYLPROPYL-  
CYCLOHEXYLMETHANE AND ISOPROPYLHEXYL-  
CYCLOHEXYLMETHANE. [1961] 3p. 7 refs.  
Order from OTI or SLA \$1.10

61-20147

Trans. of Zhurnal Obshchei Khimii (USSR) 1945,  
v. 15, p. 799-801.

DESCRIPTORS: Synthesis, \*Methanes, Antiknock,  
Octanes, Petroleum, Hydrogenation, Ethylenes,  
Cyclohexanes, Molecular structure, Alcohols, \*Fuels,  
\*Aviation fuels, Ethyl radicals, Propyl radicals,  
Hexyl radicals.

Ethylpropylcyclohexylmethane and isopropylhexyl-  
cyclohexylmethane, not previously reported in the  
literature, were synthesized. The pour points of these  
hydrocarbons and their antiknock properties expressed  
in cetene numbers were determined. (Author)  
(Materials--Fuels, TT, v. 7, no. 1)

I. Petrov, A. D.  
II. Krutov, K. M.  
III. Khrenov, I. M.

154243

Office of Technical Services

Petrov, A. D. and Voronova, A. V.  
ANTI-KNOCK PROPERTIES OF SOME BINARY MIX-  
TURES. [1961] [1] p. 4 refs.  
Order from OI'S or SLA \$1.10 61-16883

Trans. of [Akademiya Nauk SSSR]. Comptes Rendus  
(Doklady) de l'Academie des Sciences de l'U.R.S.S.,  
1941, v. 31, no. 8, p. 765-766.

DESCRIPTORS: \*Hydrocarbons, \*Heptanes, Antiknock.

Octane numbers of mixtures such as polymer gasoline  
cannot be derived from the octane numbers of individual  
pure compounds by simple calculation. An investigation  
of the change of octane numbers of five binary mixtures  
with the proportions of their components was carried  
out and the conclusions drawn were compared with  
those drawn by Smittenberg, Hoog, Moerbeek and  
Zigden in 1941. (Author)  
(Chemistry--(organic, TT, v. 6, no. 9)

61-16883

I. Petrov, A. D.  
II. Voronova, A. V.

Office of Technical Services

Petrov, A. D. and Shchukin, V. I.  
ISOMERIZATION OF NORMAL HEPTENE TO  
METHYLDIETHYLETHYLENE AND OF NORMAL  
OCTENE TO DIMETHYLBUTYLETHYLENE. [1961]  
Sp. 8 refs.  
Order from: OTS or SLA \$1.10

61-16934

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,  
p. 1092-1095.

DESCRIPTORS: \*Octenes, Isomerism, Chain reactions,  
\*Ethylenes, \*Hydrocarbons, Raman spectroscopy,  
Heptenes, Methyl radicals, Ethyl radicals, Butyl  
radicals.

Isomerization of normal 1-heptene to methyldiethyl-  
ethylene and of normal 1-octene to dimethylbutylethyl-  
ene was established. The difference in the schemes of  
isomerization of normal olefins into branched chain  
(Chemistry--Organic, TT, v. 6, no. 9) (over)

61-16934

I. Petrov, A. D.  
II. Shchukin, V. I.

Office of Technical Services

Petrov, A. D., Verentsova, N. I., and  
Kokleeva, T. A.  
SYNTHESIS OF 2-METHYL-4-HEXYNE AND  
2,6-DIMETHYL-3-HEPTYNE. [1961] 5p. 12 refs.  
Order from OTS or SLA \$1.10 61-16935

Trans. of Zhurnal Obshchei Khimii (USSR) 1941,  
v. 11, p. 1096-1099.

DESCRIPTORS: Hydrocarbons, Synthesis, Antiknock,  
\*Fuels, Methyl radicals, \*Heptynes, \*Hexynes.

Synthesis of two new hydrocarbons is reported,  
2-methyl-4-hexyne and 2,6-dimethyl-3-heptyne. Anti-  
knock properties of acetylenic hydrocarbons have been  
evaluated. (Author)

(Chemistry--Organic, TT, v. 6, no. 9)

61-16935

I. Petrov, A. D.  
II. Verentsova, N. I.  
III. Kokleeva, T. A.

Office of Technical Services

Petrov, A. D. and Karlik, L. D.  
SYNTHESIS OF GLYCOLS OF THE ACETYLENE  
SERIES. [1961] 5p. 16 refs.  
Order from OTI or SLA \$1. 10

61-16936

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,  
p. 1100-1103.

DESCRIPTORS: \*Glycols, Synthesis, \*Acetylenes,  
Alcohols, Antiknock.

Synthesis of three acetylenic  $\gamma$ -glycols is reported:  
5-decyne-4, 7-diol, 9-octadecyne-8, 11-diol, 10, 13-  
dimethyl-11-doxosyne-10, 13-diol. The method of  
synthesis of glycols and alcohols of the acetylene  
series suggested by L. Kazaryan was tested. Anti-  
knock properties of acetylene alcohols and their sus-  
ceptibility to tetraethyllead was studied. (Author)

(Chemistry--Organic, TT, v. 6, no. 7)

61-16936

I. Petrov, A. D.  
II. Karlik, L. D.

Office of Technical Services

Petrov, A. D. Pavlov, A. M., and Makarov, Yu. A.  
SYNTHESIS OF 3-ETHYLDECANE AND 2,5-DI-  
METHYLUNDECANE. [1961] 3p. 4 refs.  
Order from OTIS or SLA \$1.10 61-16937

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,  
p. 1104-1106.

DESCRIPTORS: Synthesis, Antiknock, Halogenation,  
\*Hydrocarbons, Chain reactions, \*Fuels, Ethyl  
radicals, Methyl radicals.

Syntheses of two new paraffins are reported, 3-ethyl-  
decane and 2,5-dimethylundecane. Antiknock properties  
and pour points of three normal and branched chain  
paraffins with 11 and 13 carbon atoms have been  
evaluated. (Author)

(Chemistry--Organic, TT, v. 6, no. 9)

61-16937

I. Petrov, A. D.  
II. Pavlov, A. M.  
III. Makarov, Yu. A.

Office of Technical Services

Petrov, A. D. and Lapteva, E. L.  
SYNTHESIS AND PROPERTIES OF SOME HIGHER  
HOMOLOGS OF BENZENE. [1961] 5p. 12 refs.  
Order from OTC or SLA \$1.10 61-16938

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,  
p. 1107-1110.

DESCRIPTOR: Benzene, Synthesis, Antiknock,  
Chain reactions, Hydrocarbons.

Three new homologs of benzene with branched side  
chains were synthesized, methyloxyphenylmethane,  
diisobutylphenylmethane and dimethylpentadecyl-  
phenylmethane. Antiknock properties of these and some  
other representatives of the series  $C_{10}H_{18}$  with  
branched and normal paraffin chains were evaluated.  
(Author)

(Chemistry--(organic, TT, v. 6, no. 7)

61-16938

I. Petrov, A. D.  
II. Lapteva, E. L.

Office of Technical Services



Synthesis and Properties of Branched Acids, *Journal of Organic Chemistry*,  
COOK, Composition C<sub>10</sub>-C<sub>12</sub>, by H. G. I. Hildebrand, M. H.  
Orlwin, A. D. Petro, 1950, pp. 3543-3547.

RUSSIAN, par, Zhur' Obshch Khim, Vol XXX, No 11, 1950,  
pp 3543-3547

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Sci  
Oct 61

177,520

61-16870

Petrov, A. I. and Azatyan, V. D.  
SYNTHESIS OF HYDROCARBONS OF THE ACETYLENE SERIES. [1961][14]p. 115 refs.  
Order from OTS or SLA \$1.60

61-16870

Trans. of Uspekhi Khimii (USSR) 1940, v. 9, no. 5,  
p. 498-521.

DESCRIPTORS: \*Hydrocarbons, \*Acetylenes,  
Synthesis.

The first part of a program of synthesis of acetylenes and evaluation of their antiknock properties is reported. The literature on the subject is reviewed, physical constants of 57 known acetylenes are tabulated and a bibliography given comprising 115 items including unpublished work of the author and his co-workers. Blending octane numbers of five acetylenes were obtained. (Author)

(Chemistry--Organic, TT, v. 6, no. 7)

I. Petrov, A. D.  
II. Azatyan, V. D.

Office of Technical Services

Petrov, A. D., Koptev, V. I., Kaplan, E. P.  
SYNTHESIS AND PROPERTIES OF ISOPARAFFINS  
WITH FROM 9 TO 12 CARBON ATOMS. [1961] 5p.  
12 refs.  
Order from OTS or SLA \$1.10 61-18176

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1944 [no. 1] p. 152-155.

DESCRIPTORS \*Hydrocarbons, Synthesis, Molecular isomerism, Antiknock, Properties.

Synthesis of five isoparaffins with from 9 to 12 carbon atoms and different extent of branching of the chain was effected through the tertiary alcohols by a Grignard reaction; of these, 2,2,3,5-tetramethylhexane was synthesized for the first time. It was shown that hydrocarbons of the above mentioned composition possessing two quaternary carbons or one quaternary and two tertiary carbon atoms have high octane numbers of the order of about 100. (Author)

(Chemistry--Organic, TT, v. 6, no. 6)

61-18176

1. Title: Isoparaffins
- I. Petrov, A. D.
- II. Koptev, V. I.
- III. Kaplan, E. P.

Office of Technical Services

Petrov, A. D. and Vitikh, M. V.  
SYNTHESIS AND PROPERTIES OF ISOPARAFFIN  
HYDROCARBONS WITH 13 TO 24 CARBON ATOMS IN  
THE MOLECULE. [1961] 5p. 6 refs.  
Order from OTS or SLA \$1.10 61-18174

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-  
cheskikh Nauk. Izvestiya, 1944 [no. 1] p. 238-242.

DESCRIPTORS: Hydrocarbons, Molecular isomerism,  
Synthesis, Properties.

On the example of six isoparaffins with a T-like struc-  
ture containing from 13 to 24 carbon atoms in the  
molecule, for the most part newly synthesized com-  
pounds, it was demonstrated that the hydrocarbons of  
this type with from 21 to 24 carbon atoms are dis-  
tinguished by cetane numbers close to 100 and  
sufficiently low pour points. (Author)

(Chemistry--Organic, TT, v. 6, no. 6)

61-18174

1. Title: Isoparaffins
- I. Petrov, A. D.
- II. Vitikh, M. V.

Office of Technical Services

61-18010

Petrov, A. D.  
FUEL FOR HIGH SPEED DIESELS. [1961] 7p. 13 refs.  
Order from O/S or SLA \$1.10 61-18010

Trans. of Akademiya Nauk SSSR. Otdelenie Khimicheskikh Nauk. Izvestiya, 1941, no. 4/5, p. 533-543.

DESCRIPTOR: \*Diesel engines, \*Fuel oil, \*Aviation fuels

A discussion is given of cracked Diesel fuels and the outlook for synthesis of low pour point components of fuels for aviation Diesels. (Author)

L Petrov, A. D.

Office of Technical Services

(Materials--fuels, TT, v. 6, no. 6)

Synthesis and Reactions of Organo-Silicon, Germanium,  
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TC-583

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Acylation of Silicohydrocarbons and Synthesis  
of Silicon-Containing  $\alpha$ -Methylstyrenes, by  
E. A. Chernyshev, Ye. N. Klyukina, A. D. Petrov,  
5 pp.

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The Reaction of 1-Naphthylmagnesium Bromide with  
Esters of Monocarboxylic Acids, by A. D. Petrov,  
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The Catalytic Hydrogenation and Polymerization of  
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JPRS 7528

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Addition of Hydride Silanes to Alkenylbenzenes in the  
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Petrov, A. D., Nikishina, G. I. and others.  
 THE DEPENDENCE OF THE SURFACE-ACTIVE  
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 TIONS OF ALKYL BENZENE SULPHONATES ON  
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 CHAIN (Zavisimost' Poverkhnostno-Aktivnykh Svoystv  
 i Moyushchey Sposobnost' Rastvorov Alkilbenzol-  
 sulfonotov ot Velichiny i Struktury Ikh Alkil'noy  
 Tsепi). May 69 [8]p. 5 refs. C.T.S. no. 633.  
 Order from LC or SLA m\$1.80, ph\$1.80 61-15371

Trans. of Maikoboyno-Zhirovaya Promyshlennost'  
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Tests showed that the washing capacity of solutions of  
 alkyl benzene sulphonates depends on the length of the  
 chain and its branches: the longer and the less  
 branched, the greater the washing capacity. Com-  
 pounds having a straight or only slightly branched  
 chain containing 12 carbon atoms are effective at  
 higher temperatures than compounds having a  
 (Materials, TI, v. 5, no. 8) (over)

61-15371

1. Sulfonates--Surface properties
2. Detergents--Surface properties
3. Sulfonates--Molecular structure

- I. Petrov, A. D.
- II. Nikishina, G. I.
- III. CTS-633
- IV. Department of Scientific and Industrial Research (Gt. Brit.)

Office of Technical Services

Organomagnesium Synthesis of 2- and 3-(Trimethylsilyl)  
Acrylic Acids and Vinyl Derivatives of Silicon,  
Germanium, and Tin, by V. F. Mironov, A. D. Petrov,  
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Relative Reactivities of Some Organosilicon, Organo-  
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Synthesis and Properties of Salts of Acids and of  
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Interaction of Isopropylolithium With Esters, by  
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Catalytic Hydrogenation of Silicon-Containing  
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amides Based on the Amines Obtained, by A. D.  
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Reaction of Triethylsilane With Secondary and  
Tertiary Vinylethynylcarbinols in the Presence  
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Synthesis and Reactions of  $\beta$ -Cyanoethylsilanes,  
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Synthesis of  $C_{14}$ - $C_{20}$  Alkylbenzenes by Grignard-Wurtz Reaction in Ether-Free Medium, by A. D. Petrov, E. P. Zakharov, T. L. Krasnova, 13 pp.

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